

IMPROVING COMMUNITY COLLEGE GRADUATION RATES BY IDENTIFYING PREDICTORS THAT MATTER

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Abstract

Hundreds of thousands of students across the country begin their postsecondary education at community colleges each year, but less than half graduate. The goal of this research was to identify key predictors of credential completion for first-time, first-year postsecondary students at community colleges. Integrated Postsecondary Education Data System (IPEDS) data from 2015 was used for the present study. A total of five linear regression models were developed to analyze the graduation rates at two-year public sector institutions. The models provide insight into statistical significance of relationships between demographics, endowment assets, dual-credit, instructor-type, and federal-grant scholarship. The analysis found that there is a statistically significant relationship among specific demographic groups. Across all models, the presence of a dual-credit program has a statistically significant relationship to graduation rates.

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Improving Community College Graduation Rates

In Fall 2017, 5.8 million students attended community college classes, but only forty percent of those students will earn a credential within six-years¹. Within post-secondary education, community colleges serve as an important springboard to college academia for a wide-range of students. They serve a vital purpose in the lives of many college students because of low-tuition costs and no minimum grade-point-average (G.P.A) requirement. However, the low percentage of students earning a credential suggests that not enough students are socially and academically integrating into these two-year institutions. Community colleges can use their immense wealth of data to improve graduation rates by identifying social and academic integration variables that aid student persistence.

There are more than fourteen hundred community colleges across the United States. They serve a variety of communities from densely populated urban areas to rural towns. For example, the 115 California Community Colleges serve 2.1 million students and is the largest system of higher education in the country². In rural areas, the local community college is often the lone bridge to college academia. In the book, *The American Community College*, Cohen and Brawer maintain that, “For most students in two-year institutions, the choice is not between the community college and a senior residential institution; it is between the community college and nothing.”³ Community

¹ U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics, Integrated Postsecondary Education Data System, “Characteristics of Postsecondary Students”, Institute of Education, last modified May 2019, https://nces.ed.gov/programs/coe/indicator_csb.asp.

² California Community Colleges Chancellor’s Office, California Community Colleges Chancellor’s Office, 2020, April 08, 2020, <https://www.cccco.edu/About-Us/Key-Facts>

³ Arthur M. Cohen, Florence B. Brawer, *The American Community College*, (San Francisco: Jossey-Bass, 1996), 55.

colleges broad reach in neighborhoods across the nation parallels their diverse student populations.

Community colleges serve a diverse student population. In fall of 2018, community colleges served 41% of all U.S. undergraduates. A higher percentage of women attended community college than men, at a ratio of 57% women to 43% men. Furthermore, community colleges serve a large share of the country's non-white undergraduates: 56 percent of Native Americans, 52 percent of Hispanics, 43 percent of African-Americans, and 40 percent of Asian/Pacific Islanders. Also, 4.4 million students attended community college part-time, whereas 2.4 million students attended full-time.⁴ The diverse student population equates to a wide-range of student's goals.

Students who attend community college have an extensive variety of goals. The assortment of goals may include: transferring to a four-year university, sampling courses at a local community college at a more affordable price, or taking select courses to acquire a necessary skill for the workforce. A study published by the National Center for Education Statistics suggests that, "when students' goals are taken into account, community college outcomes are better than they seem."⁵ Student goals also influence the low graduation rates at community.

Students that dropout of community college suffer long-term financial consequences in comparison to those who earn their degree. According to researchers, Levin and Garcia, estimate that attainment of an associate's degree from City University

⁴ Kent Phillippe, Rahel Tekle, "AACC Fast Facts", American Association of Community Colleges (AACC), 2020, accessed April 10, 2020, <https://www.aacc.nche.edu/research-trends/fast-facts/>.

⁵ Thomas Bailey, Davis Jenkins, D. Timothy Leinbach, "The Effect of Student Goals on Community College Performance Measures", Community College Research Center, 2007, accessed April 11, 2020, doi=10.1.1.727.1059&rep=rep1&type=pdf

of New York (CUNY) improves the lifetime earnings of students by \$324,000⁶. A similar increase in lifetime earnings is prevalent in community college graduates across the country. In 2013, a national study found that “median earnings for individuals with associate degrees working full time were 27% higher than median earnings for those with only a high school diploma.”⁷ The monetary value of an associate’s degree is an important factor to consider for the student and the state.

When students achieve their goals and receive their degree, they increase the economic viability of the state. According to a report by the Study of Societal Issues from the University of California, “graduates effectively return five dollars to the state for every additional dollar invested in their completion, a rate of return double that of those who fail to finish.” A similar economic benefit was evident in a study on graduates from the State of New York, “each additional associate degree provides a fiscal benefit to the taxpayer of \$205,500 in PV of lifetime benefits at age 23 years.”⁸ When community colleges grant diplomas to more students, it changes not only the life of the individual, but the local community.

Research on student persistence in post-secondary education is a broad and comprehensive area of educational research. This study addresses students that are considered first-time, first-year undergraduates who earn their credential within three years or 150% of time. Due to privacy concerns, student-level data such as a grade-point

⁶ Henry M. Levin, Emma Garcia, “Accelerating Community College Graduation Rates: A Benefit-Cost Analysis,” *The Journal of Higher Education*, (2017): 10, doi:10.1080/00221546.2017.1313087.

⁷ Sandy Baum, Jennifer Ma, and Kathleen Payea, “Education pays 2013,” *The College Board*, (2013), <http://www.rilin.state.ri.us/Special/ses15/commdocs/Education%20Pays,%20The%20College%20Board.pdf>.

⁸ Henry M. Levin, Emma Garcia, “Accelerating Community College Graduation Rates: A Benefit-Cost Analysis,” *The Journal of Higher Education*, (2017): 10, doi:10.1080/00221546.2017.1313087.

average, income-background, or first-generation student is not accessible. Thus, the study focuses on institutional indicators such as type of faculty employment, dual enrollment and federal money awarded to the student. These indicators are less reliable indicators of student persistence, but could improve policy to increase graduation rates.

Literature Review

This literature review is narrow in scope. First, the review discusses demographic trends that influence graduation rates such as gender and ethnicity. Then, the study focuses on the importance of student enrollment status. Next an examination of student placement into remedial courses because of a lack of academic preparedness. Subsequently, the decision by community colleges to use dual-enrollment as a solution to remedial coursework. Last, consideration of the influence of part-time instructors on community college campuses. Further research would be more inclusionary of various qualitative and quantitative methods that address graduation rates.

There is a consensus in the literature regarding certain demographics and socio-economic trends. Women graduate at a higher rate than men across ethnicity groups. There are significant differences in the rate of completion based on ethnicity groups⁹. Minorities apart from Asian-Americans finish with a lower rate of completion than Caucasian students.¹⁰ Most of the research determines that students from low-income backgrounds and first-generation students face additional obstacles on the pathway to

⁹ Thomas Baily, Davis Jenkins, and Timothy Leinbach, What We Know About Community College Low-Income and Minority Student Outcomes: Descriptive Statistics from National Survey, Community College Research Center, (2005), accessed February 2, 2020, <https://files.eric.ed.gov/fulltext/ED484354.pdf>

¹⁰ Jolanta Juskiewica, "Trends in community college enrollment and completion data, 2017, American Association of Community Colleges, (2017), accessed February 14, 2020, <http://hdl.handle.net/10919/86967>,

graduation¹¹. This review does not further specify demographic trends such as gender and ethnicity; however, it delves further on the socio-economic and academic challenges that students face.

A crucial factor in understanding student success is enrollment status. The decision to enroll full-time versus part-time typically leads students down a path of earning or not earning a credential. A longitudinal study by the National Student Clearinghouse, “found that students enrolling exclusively part-time had by far the lowest completions rates.” Also, attending full-time has an inverse effect consistently completing at higher rates¹². Writing in the *Inquiries Journal*, Grabowski writes,

Part-time enrollment presents significant challenges for students, including lack of financial aid, less opportunities to connect with staff and fellow students, and longer degree completion time. Thus, it would behoove postsecondary institutions to present options that either facilitates full time enrollment or addresses the challenges created by part-time enrollment¹³.

A student’s decision of enrollment status can lead them down two-paths, full-time or part-time, with full-time giving them a more likely probability of success.

Community college is a cost-effective pathway towards postsecondary education because of low-tuition costs. Therefore, the student population comes from different financial situations. A report post-secondary student population found, “minority students (particularly African-Americans), students from the lowest income quartile, and first-generation college students are all disproportionately represented in certificate programs

¹¹ Tara M. Falcone, *Toward a New Model of Student Persistence in Higher Education*, University of Delaware, (November: 2011), accessed February 3, 2020, <https://files.eric.ed.gov/fulltext/ED530661.pdf>

¹² D. Shapiro, A. Dunder, P.K. Wakhungu, X. Yuan, A. Nathan, and Y.Hwang, *Completing College: A National View of Student Attainment Rates – Fall 2010 Cohort* (Signature Report No. 12), National Student Clearinghouse Research Center, 60, Herndon VA:

¹³ Caleb Grabowski, Caleb, *Today's Non-Traditional Student: Challenges to Academic Success and Degree Completion. Inquiries Journal/Student Pulse* 8 (03), accessed April 13, 2020, <http://www.inquiriesjournal.com/a?id=1377>

in community colleges.¹⁴ Thus, the decision to enroll full-time is just as much a financial decision as academic.

The decision to enroll full-time is as much an academic goal as financial goal in some cases. By attending full-time, a student leaves an opportunity cost of not working. Therefore, community college students seeking to enroll full-time may make that decision based on receiving federal financial aid. A report by the College Board found that in 2012, 70% of community college students applied for federal aid and 38% received Pell grants. A Pell grant is awarded to students in extreme financial need. In addition, more than 60% of part-time and full-time students were gainfully employed¹⁵. Although, community colleges are an affordable pathway to college academia their student body faces hard financial decision. As a result, being awarded a federal grant could be the difference between earning a credential or dropping out.

The relationship between academic preparedness and remedial coursework are important factors in earning a credential. Students who lack the necessary skills for college academia spend time and money completing remedial courses. These courses do not contribute towards earning a degree nor transferring to a four-year institution. In a study on the impact of remedial courses, Baily found that “Degree completion for remedial students is also rare. Less than one-quarter of community college students in the NELS sample who enrolled in developmental education complete a degree or certificate

¹⁴ Thomas Bailey, Jenkins Davis, and Timothy Leinbach. "What We Know about Community College Low-Income and Minority Student Outcomes: Descriptive Statistics from National Surveys." *Community College Research Center* (2005).

¹⁵ Jennifer Ma and Sandy Baum Ma. "Trends in community colleges: Enrollment, prices, student debt, and completion," *College Board Research Brief* 4 (2016): 1-23.

within eight years.¹⁶” A similar study on the impact remedial courses and the effect on minority student populations found that “Only 1 percent of African-American students and 2 percent of Latino students who enrolled in the lowest level of remedial math in 2014 made it through an entry-level college math class within two years (the amount of time it’s supposed to take to earn a full associate’s degree).¹⁷” To address academic preparedness and removing the obstacle of remedial coursework, colleges are using a program called “Dual-Enrollment”.

Dual-Enrollment programs allow high school students to enroll in college classes. This program serves both underrepresented students needing to refine their skills for college academia and college-ready students looking to get an early start in college. A study by the Community College Research Center indicates “two thirds of community college dual enrollment students nationally were from low- or middle-income families.¹⁸” The program helps students complete their remedial courses early and increases the likelihood of a social integration with the institution.

To meet the demands of both traditional and non-traditional students, community colleges are relying on part-time instructors to teach courses. The growing reliance on part-time faculty is evident in a recent report by the U.S. Department of Education, “in the fall of 2016, more than half of instructors at two-year public universities were

¹⁶ Thomas Bailey, “Challenge and Opportunity: Rethinking the Role and Function of Developmental Education in Community College,” *New Directions for Community Colleges* 2009, no. 145 (2009): 11-30, 14 <https://doi.org/10.1002/cc.352>.

¹⁷ Meredith Kolodner, Brad Racino and Brandon Quester, *The Hechinger Report*, “The Community College ‘Segregation Machine,’” December 13, 2017. <https://hechingerreport.org/community-college-segregation-machine/>.

¹⁸ John Fink, Jenkins Davis, and Yanagiura Takeshi, *What Happens to Students Who Take Community College “Dual Enrollment” Courses in High School?* Community College Research Center, 2017. Accessed on February 17, 2020, <https://eric.ed.gov/?id=ED578185>.

employed as part-time faculty, according to the U.S. Department of Education Statistics¹⁹. This reliance on part-time faculty limits how students academically integrate with the institution.

Faculty play an essential role in the student's personal and academic life due to the number of times student-faculty interaction occur inside and outside the classroom. However, the increasing reliance on part-time faculty is likely to limit the number of student-faculty interactions in comparison to their full-time counterpart. According to a recent study a "student experienced a significant yet modest effect from exposure to part-time faculty members on the probability of completing an associate's degree²⁰. Other research indicates a different result, focus group study found that faculty-student interactions are most likely to occur to address issues with the curriculum and students do not appear to be aware of the importance of student-faculty interactions²¹.

¹⁹ U.S. Department of Education, Table 314.30. Employees in degree-granting post-secondary institutions, by employment status, sex, control and level of institution, and primary occupation. "Digest of Education Statistics, 2017." Accessed April 27, 2020. https://nces.ed.gov/programs/digest/d17/tables/dt17_314.30.asp.

²⁰ Audrey J Jaeger, Kevin Eagan, "Unintended Consequences: Examining the Effect of Part-Time Faculty Members on Associate's Degree Completion," *Community College Review*, January 1, 2009, <https://doi.org/10.1177/0091552108327070>.

²¹ Cotten, Shelia R., and Bonnie Wilson. "Student-Faculty Interactions: Dynamics and Determinants." *Higher Education* 51, no. 4 (June 1, 2006): 487–519. <https://doi.org/10.1007/s10734-004-1705-4>.

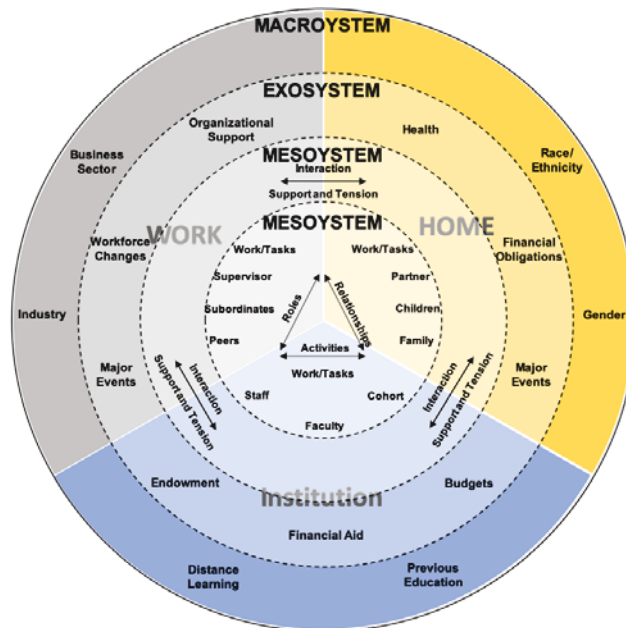
Theoretical Framework

The theoretical framework for this analysis is the ecological model (Figure 1) established by Bronfenbrenner²² and integrating research by Tinto²³ and Braxton²⁴ containing of:

- a. Microsystem – activities, relationships and roles experienced by a student in a given setting (e.g., community college, home, and work)
- b. Mesosystem – interrelations between various student settings
- c. Exosystem – external forces affecting student settings
- d. Macrosystem – societal forces affecting student settings

Figure 1

Conceptual Framework



²² Urie Bronfenbrenner, *The Ecology of Human Development: Experiments by Nature and Design*, Cambridge, Mass: Harvard University Press, 1979

²³ Vincent Tinto, *Leaving College: Rethinking the Causes and Cures of Student Attrition*, 2nd ed. Chicago; London: University of Chicago Press, 1993

²⁴ John Braxton, Jeffrey Milem, and Anna Shaw Sullivan, "The Influence of Active Learning on the College Student Departure Process: Toward a Revision of Tinto's Theory." *The Journal of Higher Education* 71, no. 5 (September 2000): 569. <https://doi.org/10.2307/264960>

Tinto's model is valuable as an empirical and theoretical framework for understanding student behavior. According to Tinto's theory, the decision to 'drop out' arises from a combination of student characteristics and the extent of their academic, environmental, and social integration in an institution. Tinto's model emphasizes that social integration is the strongest indicators of academic integration. Examples of social integration are faculty-student interaction, peer group interaction, and extracurricular involvement. When a student feels a sense of belonging, they are more likely to persist and work towards academic success. Academic integration occurs when students become attached to the intellectual life of the college. However, the plight of the two-year student offers stark contrasts in comparison to the four-year student.

Tinto's model as the framework for student persistence was initially developed to understand the plight of the traditional four-year postsecondary education student. Tinto's model heavily relies on social integration theory. A traditional four-year student is likely to live on or near campus away from family. A traditional two-year postsecondary student is likely to live with family and not live on campus. Therefore, additional research incorporates the frameworks of Bronfenbrenner and Braxston.

Data

Since 1965, The U.S. Department of Education's National Center for Education Statistics (NCES) uses the Integrated Postsecondary Education Data System (IPEDS), which gathers information "from every college, university, technical and vocational institution that participates in the federal student financial aid programs." The institutions that participate report data on enrollments, program completions, graduation rates, faculty

and staff, finances and institutional prices and student financial aid.²⁵ The IPEDS is a cross-sectional study, which means that it captures a snapshot of a group of students based on the academic year. For this study, the focus is on the 2015-2018 academic school years. The 968 institutions included in analysis are two-year public sector colleges. The more than 400 two-year private institutions are not included in the analysis. The NCES-IPEDS is the authoritative source for publicly available postsecondary data.

The following variables below were used in the analysis. All variables are from the 2015-2016 academic school year except for number of completers in 2018. The variables align with the theoretical framework. The list of variable below were included in the multiple models:

- Endowment Assets at the beginning of the 2015 fiscal year
- Dual Credit: Whether the institution allowed high-school students to earn college credits
- Federal Grant Aid: Average amount of federal grant aid awarded to full-time, first-time undergraduate
- Federal Grant Aid: Percent of full-time, first-time undergraduates awarded
- Full-time instructional staff
- Part-time instructional staff
- Total price for in-state students living off campus with family
- Undergraduate level distance education programs offered
- Percent of enrollment of the following demographic groups: Asian, Hispanic, African American, Caucasian, and Women.

Methodology

The goal of this research was to identify key predictors of credential completion for first-time, first-year postsecondary students at community colleges. For this study, community college is defined as two-year public colleges that offered an associate degree

²⁵ U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics, Integrated Postsecondary Education Data System, “The Integrated Postsecondary Education Data System.” Accessed April 14, 2020. <https://nces.ed.gov/ipeds/about-ipeds>.

as its highest award. The outcome variable in this study – graduation rate measured whether a first-time, first-year student who began their education in 2015 earned an associate’s degree by 2018. To identify key predictors of credential completion, demographics by ethnicity group, endowment size, total number of part-time and full-time instructors, student population, distance education, the average amount of federal grant awarded to each student, the percentage of students that received federal grant money, the number of full-time students enrolled at the institution and whether the institution offered dual-credit. The outcome and predictors were evaluated using multiple linear regression modeling.

The sample is a derivative from students who begin their collegiate career shortly after high school. The data is not representative of all community college students. As a result, the findings of the study are likely confined to traditionally aged students who began postsecondary education at a community college. The IPEDS is a cross-sectional study, which means that it captures a snapshot of a group of students based on the academic year. For this study, the focus is on the 2015-18 academic school years. The data downloaded from the NCES-IPEDS database was imported into R to conduct the qualitative analysis.

Limitations in the analysis are due to the lack of variables specifically about the student. Within the literature, grade-point average, economic background, and highest level of family education are strong predictors in student persistence. As a result, the modeling has a high likelihood of low-adjusted r-squared values.

Results

In 2015, there were 968 reporting community colleges that reported to NCES-IPEDS. The number of first-time, full-time students enrolled was 2,146,395. The percentage of students that graduated within three years was 34.7%. The median graduation rate was 29%. The average cost of tuition for the full academic year including books, while living with family was \$9,290. The percentage of students that were awarded federal grant money was 56%.

Table 1 presents the results of the study. A total of five ordinary least squares models that were estimated to explore the impact of various independent models. Four blocks of independent variables were considered:

- 1) Student Demographics
- 2) Dual Credit and Distance Education
- 3) Finance
- 4) Academic and non-academic experiences
- 5) All variables

Table 1. Results

Regression results using graduation rate for the 2015 cohort as the criterion.

	Model 1	Model 2	Model 3	Model 4	Model 5
(Intercept)	59.06*** (8.91)	90.55*** (6.47)	49.58*** (3.87)	51.82*** (4.94)	45.50*** (4.85)
Female	0.48*** (.10)	0.35*** (.08)	0.13** (.05)	0.11* (.05)	0.12** (.05)
Asian	0.52** (.20)	.00 (.14)	0.13* (.14)	0.17* (.07)	0.15* (.07)

Black	.06 (.08)	.06 (.06)	.02 (.06)	.03 (.03)	.00 (.03)
Hispanic	.02 (.08)	-.01 (.06)	.01 (.06)	.01 (.03)	.02 (.03)
White	.06 (.07)	.19*** (.05)	.09*** (.05)	.08** (.02)	.06* (.02)
Dual Credit		25.89*** (3.29)	16.93*** (3.29)	17.14*** (2.34)	-10.48*** (2.29)
Distance Education		26.08*** (2.83)	3.80* (2.83)	4.18 (2.06)	1.46 (2.06)
Tuition			0.08* (0.00)	0.00 (0.00)	0.00 (0.00)
Average Awarded Federal Grant				0.00 (0.00)	0.00 (0.00)
Percentage of Federal Grant				-0.04 (0.03)	-0.04. (0.03)
Endowment					0.00 (0.00)
Full-time enrollment					0.00*** (0.00)
Part-time Instructors					-0.01*** (0.00)
Full-time Instructors					-0.02*** (0.00)
Adjusted R- Squared	0.030	.315	.132	.132	.143
F-					
n =	954	954	954	954	954

Roust standard errors in parentheses.

* p < 0.05, ** p < 0.01, *** p < .001

Model 1

In this model, only basic demographic information was analyzed. The results partially align with the literature review. The linear regression shows that the percentage of female and Asian Americans has a moderately positive relationship to graduation rates. The model shows that the percentage of Hispanic, African American, and Caucasian students are not statistically significant towards graduation rates. The omission of Caucasian students is not statistically significant shows that the model may have omitted variable bias. Together, these predictors accounted for 3 percent of the variance in graduation rates, which means the model is not a good fit. Overall, the model aligns with the literature except for the variable related to Caucasian students. The variables that were not significant predictors of graduation rates were Hispanic, African American, and Caucasian students. Female and Asian enrollment were statistically significant indicators and positively associated with graduation rates.

Model 2

In addition to modeling the impact of basic demographic information on graduation rates, Model 2 included two programs that assist credential completion, dual-credit, and distance education offerings. Together, these predictors accounted 31.5 percent of the variance in graduation rates, which made this the best fitting model of the five. The only variables not statistically significant to improve graduation rates were the percentage of Hispanic and Black enrollment. The presence of a dual-credit and distance education both had a statistically significant relationship and were positively associated with graduation rates.

Model 3

In Model 3, the variables measuring demographics, dual-credit, distance education, and tuition were incorporated in the analysis. As with Model 2 the demographic groups and a dual credit program were statistically significant indicators of graduation rates. Although, the positive increase on graduation rates were lessened. There was a statistically significant relationship between tuition and graduation rates.

Model 4

In model 4, the variables measuring demographics, dual-credit, distance education, tuition, average percentage of federal financial aid and percentage of students awarded were included in the model. As with Model 2 and 3 demographic predictors and presence of a dual credit program were statistically significant at the .01 confidence levels. The presence of a distance education program was no longer statistically significant nor were the presence of federal grant dollars awarded.

Model 5

Three additional predictor variables were included into the model, endowment assets, the number of full-time students, the number of part-time instructors and full-time instructors. As with other models, demographics indicators and dual credit were statistically significant at the .01 confidence levels. Both part-time and full-instructors were both statistically significant at the .01 confidence levels. In addition, the number of full-time students is a statistically significant predictor of graduation rates.

The results of the five models yielded several interesting findings that often align with the literature. Women, Asian and Caucasian groups were significant predictors in graduation rates. All models indicate the Hispanic and African Americans did not have a statistically significant relationship. This aligns with most of the studies that suggest

underrepresented groups are graduating at a far lesser rate than other groups. After controlling for demographics, the presence of a dual enrollment and distance education program were significant predictors of graduation rates. In general, tuition and the presence of financial aid endowment assets were not significant indicators of graduation rates. The presence of full-time and part-time instructors were statistically significant at .01 confidence levels.

Conclusion

The findings from this study are a helpful starting point to springboard further analysis into graduation rates at community colleges. First, the study should look over full-time, first-time students over multiple years, and see if the same relationships with the selected predictors are statistically significant. This is only a snapshot of a single cohort from 2015-2016. A better study would include multiple cohorts over a longer period.

The findings suggest that the presence of a dual-credit program has an important relationship with graduation rates. In the study, there were 74 institutions that did not report having a dual enrollment program. These institutions would be wise to implement a dual-credit program at their institution. The institutions that already have a dual-credit program should look to continually increase rates of high-school students in the local area into the program.

The need to address underrepresented groups should be a priority. Institutions need to find ways to both academically and socially integrate these students into their institutions. A further study would likely include the demographic groups of the instructors. Graduation rates for underrepresented groups could positively improve, if

their instructors come from a similar background. In addition, the fact that there was a not a statistically significant relationship between graduation rates and federal grant money is worth further investigating. The amount of dollars being awarded may not be helping students work less, which provides less time dedicated to studying.

In conclusion, community colleges low graduation rates suggest that not enough students academically or social integrate with their institution. The models suggest that there could be financial or social issues hampering student persistence. Students given more financial assistance could enroll full-time or work less hours at their employers. Also, dual-credit programs and distance education programs are both relevant policies for administrators to pursue and develop. For many students, community colleges are the lone bridge to a postsecondary education, it's vital to get more students to enroll full-time and persist to graduation.

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Curriculum Vita

Brian Stettenbenz was born on January 29th, 1982 in Monterey, California. For the last three years, he has studied policy and analytics at Johns Hopkins University. His coursework involved learning the following types of statistical software: R, SPSS Modeler and Stata. In addition, he learned advanced techniques in Excel and SQL. Through the coursework, he now understands how governance can improved by understanding statistics and applying data analysis.

Core Strengths and Qualifications

- Responsible for center-wide data analysis, statistics, and presentations
- Prepare reports, illustrating data graphically for internal and external audiences
- Gather data to write up detailed reports and draw conclusions
- Compile, analyze, and segment data using Excel and Google Analytics
- Develop and maintain system-use documentation for non-technical users across multiple departments

Key Competencies

- Build a clear understanding of existing business functions and processes
- Attention to detail and high standards of accuracy in all aspects of work
- Proficient in Stata, R, SQL, and Tableau
- Extensive experience with Microsoft Office and Adobe Creative Cloud

Select Accomplishments

- Project lead for creation of website visualizing K-12 School Shooting Database
- Project lead for implementation of multi-million-dollar e-commerce program

Employment History

- Data Analyst, Center for Homeland Defense and Security at Naval Postgraduate School | Monterey, CA | April 2015 – Present
- Digital Media Coordinator, Monterey Plaza Hotel & Spa | Monterey, California | Dec. 2012 – April 2015
- Technology Consultant, YWCA | Salinas, California | July 2010 – Dec. 2012

Education

- CSU Monterey Bay | Bachelor of Arts, Human Communication
- Johns Hopkins University | Master of Science in Government Analytics

Volunteer Experience

- Board Member – Police Community Advisory Committee | 2017-2020